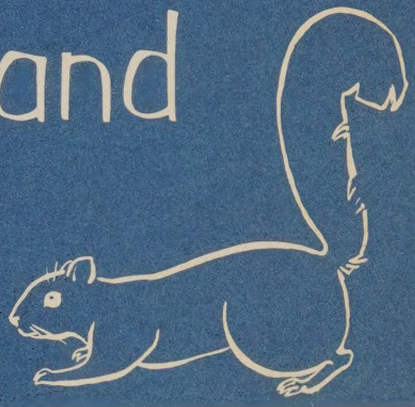
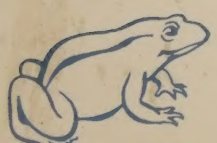
Plants and Animals of Staten Island





By Olive L. Earle

Published by the Staten Island
Institute of Arts and Sciences


GOETHALS BRIDGE
UPPER BAY
BAYONNE BRIDGE
KILL VAN KULL
CHELSEA
ARTHUR KILL
PORT RICHMOND
RICHMOND AVE.
FOREST AVE.
TRAVIS
DAVIS BIRD SANCTUARY
CLOVE LAKES PARK
STATEN ISLAND MUSEUM
WILLOW BROOK PARK
SILVER LAKE
OUTERBRIDGE CROSSING
FRESH KILLS
ROCKLAND AVE.
ST. GEORGE
FERRY TERMINAL
VICTORY BLVD.
LATOURETTE PARK
MANOR RD.
REED'S VALLEY BROOK
TOTTENVILLE
DRUMGOOLE BLVD.
PLEASANT PLAINS
RICHMOND MARSHES
DEADMAN'S BROOK
STAPLETON
SANDY BROOK
RICHMOND ROAD
BAY ST.
PRINCE'S BAY
WOLFE'S POND PARK
THE NARROWS
NEW DORP
GREAT KILLS
HYLAN BLVD.
MARINE PARK
YACHT BASIN
FORT WADSWORTH
LOWER BAY

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BY OLIVE L. EARLE

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New York, 1953

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OLIVE L. EARLE loves the out-of-doors. She lives on Staten Island in a big, old house surrounded by trees and shrubs. She loves to draw and paint, too, so she divides her time between her cheerful studio and her woodsy garden. In the studio she writes and illustrates nature stories about the things she has seen in her garden or on her trips into the country. Within the past few years she has done several popular books for young people on birds and flowers.

Born in England, Miss Earle has lived for many years in the United States studying its plants and animals. Her murals, paintings, and drawings have been widely used in exhibitions in our most famous zoos, aquariums, and museums. She has devoted a lifetime to an understanding and enjoyment of Nature and in this little book offers to share it with her Staten Island friends.

COVER DESIGN AND MAP BY ELLIOTT P. ELLIS

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What This Book Is About

Staten Island, a part of New York City, is different from the other boroughs. For one thing, you have to cross the Bay on ferries to get to it, except from New Jersey; and for another, it has less than 200,000 people – which makes it the smallest borough in population. But the most important thing is that it isn't like a city at all. There are no skyscrapers, no subways, and no section with block after block of buildings packed solid.

Instead, Staten Island is made up of a number of towns, like Travis, New Dorp, and Pleasant Plains, most of them separated from each other by woods and fields; and even where they have grown together, especially on the North Shore, they have shady streets, big parks, and houses surrounded by gardens.

This means that people who live on or visit Staten Island can do things that can't be done in some of the other boroughs. One of these is to enjoy the space, fresh air, and sunshine of the open country. All this is wonderful for people, but it is even better for the trees, flowers, and all sorts of animal life found almost everywhere on the Island. However, as more people move in the plants and animals move out, because people's houses often take up the space where wild plants and animals like to live. There is still lots of room, though, on Staten Island, and if we really want to we can keep and enjoy a great many of the areas where these wild things make their homes.

This little book gives pictures and interesting facts about a few of these plants and animals. There are a great many more, of course, but everybody who can recognize those in this book will know more than most people do – which will make a picnic, a hike, or an hour spent in your own backyard lots more fun.

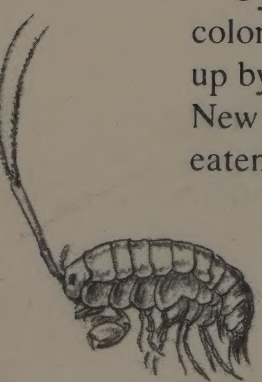
Seashore

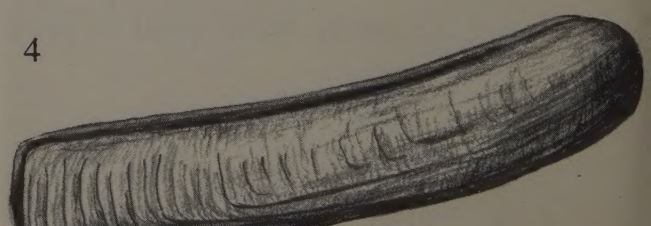
Staten Island beaches, such as Marine Park or Prince's Bay, are full of animals and plants. Jelly fish are often washed ashore, where they soon melt away in the sun. But in a tide pool they may be seen swimming with an opening-and-closing umbrella motion. From the almost colorless globe of jelly hang two tentacles which can be shortened, lengthened, or coiled. Along each are stinging side branches set like the teeth of a comb. Bathers are sometimes sorry when they brush against them.

The beach flea or sand-hopper is a grayish inch-long crustacean, which means he belongs to the group of sea animals covered with a crust, like lobsters or crabs. He, too, molts his shell, eye-covering and all, and in his soft "underwear" goes into hiding until it has hardened into a new shell. Flexible joints in his armor make him an agile jumper. He is often found in dry seaweed around high-water line, and little round holes in moist sand may mean that he and his family are living there.

The beaches are always full of shells, most of the time without their occupants. Razor-shell clams get their name from the fact that they are shaped like the handle of an old-time razor. When alive, the razor-shell lives at low-water line, where it burrows in the sand. With the aid of its protruding foot it can disappear into the sand almost like magic.

Oyster shells strew the beaches, too. The oysters grow in colonies attached to rocks under water. They used to be dredged up by the millions and sold for food; but now the waters around New York City are polluted, and the oysters can no longer be eaten.

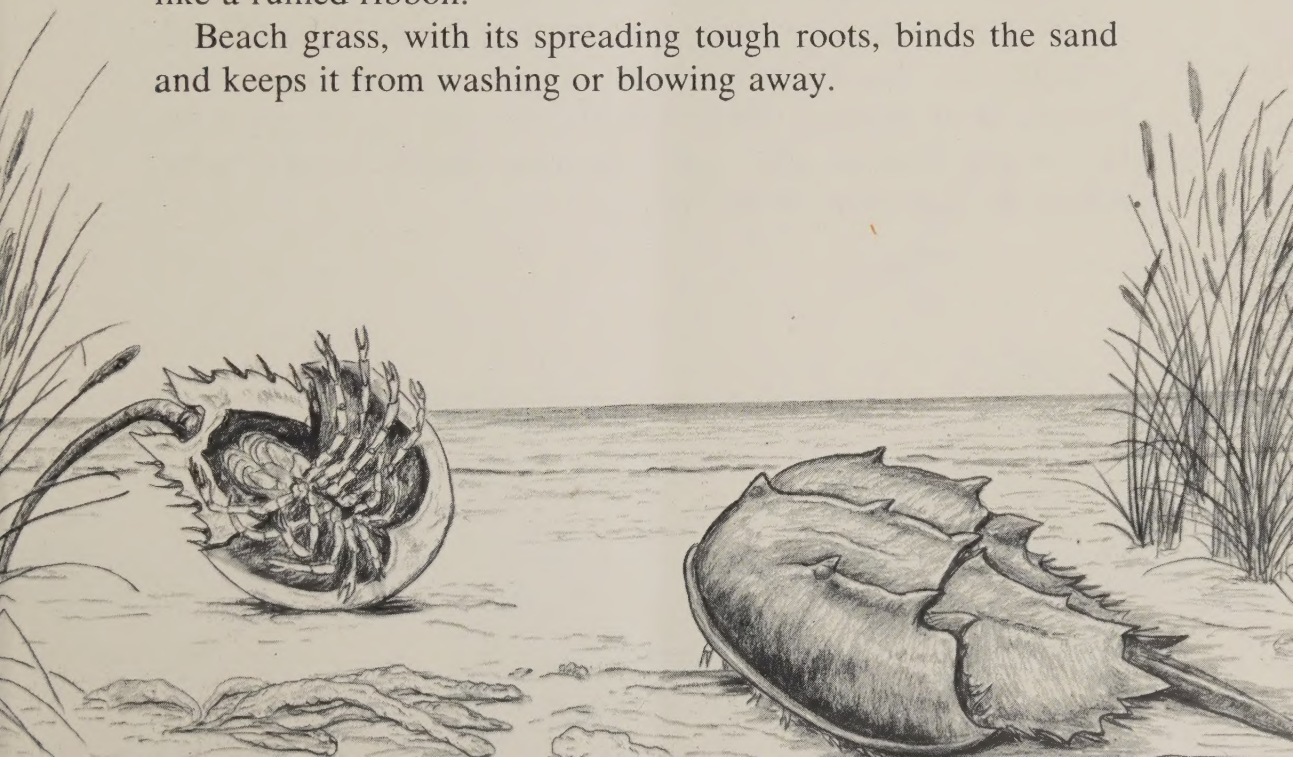


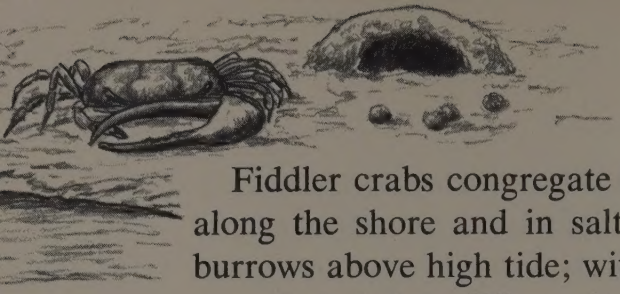


The horseshoe crab is the last survivor of an otherwise extinct group. Some scientists say that his nearest living relatives are spiders and scorpions. The underside of the large animal is shaped like a horse's hoof; from it hang pairs of claw-tipped legs which surround the mouth. He eats shell fish, marine worms, and debris. Under the rear part of the shell there is a set of leaflike swimming attachments. Molted shells are often found on the beach split across the front. Through this slit the crab climbed out when his suit became too tight. The king crab, as he is frequently called, may grow up to twenty inches long. This length includes the caudal spine – the sharp spike that looks like a tail. He uses this spike to right himself after a wave has turned him wrong side up.

Grinnellia, a purple or rose-red seaweed, is often found washed ashore, having broken away from its mooring on the ocean floor. It is thin, and the leaf-shaped fronds have wavy edges. Sea lettuce is brilliant green, thin and silky, sometimes like a ruffled ribbon.

Beach grass, with its spreading tough roots, binds the sand and keeps it from washing or blowing away.





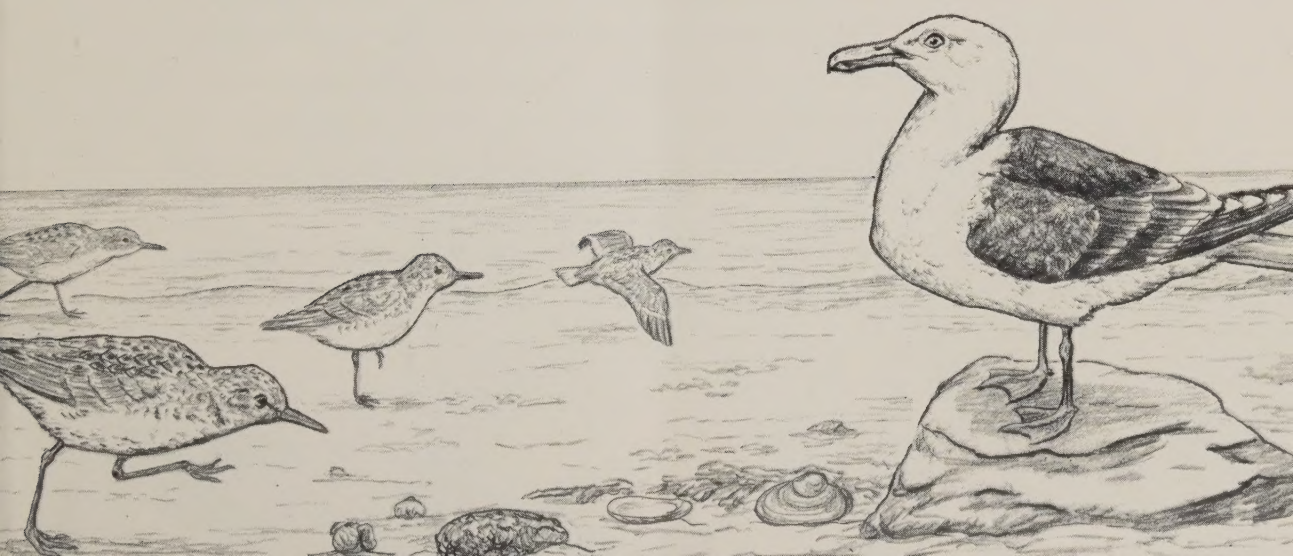
Fiddler crabs congregate in great numbers in muddy places along the shore and in salt marshes. The tiny crabs live in burrows above high tide; with pellets of mud they build domes over their holes. When alarmed, they noisily scuttle sidewise (like all crabs) into the nearest refuge. The male has one large claw and one small – like a fiddle and a bow. Both claws on the female are small. Two beadlike compound eyes are supported on long stalks which allow the crab to look in almost any direction. They can, however, be withdrawn under the shell for protection. Fiddlers measure up to an inch and a half across the back and are protectively colored. They are vegetarians and eat microscopic seaweeds.

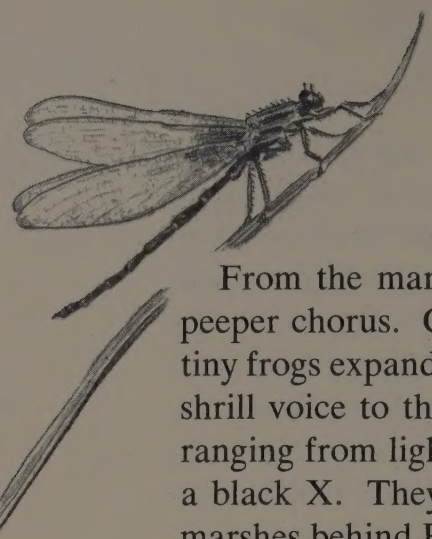
The male spider crab found on our shores has a leg-stretch of eight to ten inches; the female is smaller. They spend their time in shallow water or mud. The spider crab is sluggish, but he is a camouflage expert. With his claws, he gathers pieces of seaweed and sticks them to his back with home-made cement. Small hooklike bristles on the rough shell help to hold the weeds in place. The crab, when he grows too big, splits his shell and wriggles out. For safety's sake he retires under the mud until his new shell hardens. He is a meat eater and enjoys any kind he can get, dead or alive. He sometimes annoys fishermen by eating the bait right off the hook.

The hard shell clam is dingy white, with the growth rings clearly marked. About three inches across, this oval-shaped clam has two hinged shells held together by an "elastic" band. The large ones are sold in restaurants as the "Little Neck" clam, but the young ones are sold as "cherry stones." However, like the oysters, those from New York Bay can no longer be eaten.

Herring gulls congregate wherever there are clams. They are white with gray wings that are black-tipped. Immature birds are brown. They pick up clams and drop them from a height onto a hard surface to break them open. Both the herring and the black-backed gulls are scavengers; they help to keep the beaches clean by picking up all sorts of edible rubbish. Larger than the herring, the black-backed gull is white at both ends and black in the middle.

Sanderlings usually go about in flocks. Always white below, they are brownish above in summer and pale bluish grey in winter. The birds run along the sand at the edge of the water hunting small sea creatures for food. They differ from their relatives, the sand-pipers, in that they have only three toes, the hind one missing.





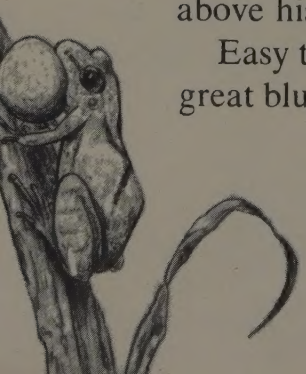
Marshes

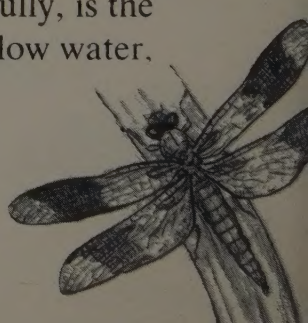
From the marshes, in early spring, comes the sound of the peeper chorus. Clinging to a blade of dead grass, one of these tiny frogs expands the balloon-like sac at his throat and adds his shrill voice to the choir. The inch-long peepers vary in color, ranging from light to dark brown; their backs are marked with a black X. They can be heard in many low, wet places. The marshes behind Richmondtown and the ponds near the Chelsea oil tanks, are good examples.

The bull frog begins his croaking later in the season. He spends much of his time in the water, but he seems to warn others in deep tones, "Be drowned, better go round!" This, the largest of our frogs, is seven to eight inches long. He is green or greenish-brown above and white below; his throat is yellow. Bull frogs devour numbers of dragonfly nymphs.

Dragonflies lay their eggs in water; the eggs develop into nymphs which finally turn into dragonflies. The nymph climbs up a plant stem until he is a few inches above the water. His skin cracks and out crawls a brand-new dragonfly. It takes some time for the newly-emerged insect's wings to stiffen and his soft body to harden. At last he takes to the air and skims swiftly over the water, hunting mosquitoes and midges. He rests with his four wings stretched horizontally. The damselfly has a similar life story. He flies much more slowly than the dragonfly. He rests with his wings folded close together and held vertically above his back.

Easy to see in ponds and marshes, if you look carefully, is the great blue heron. He often stands like a statue in shallow water.

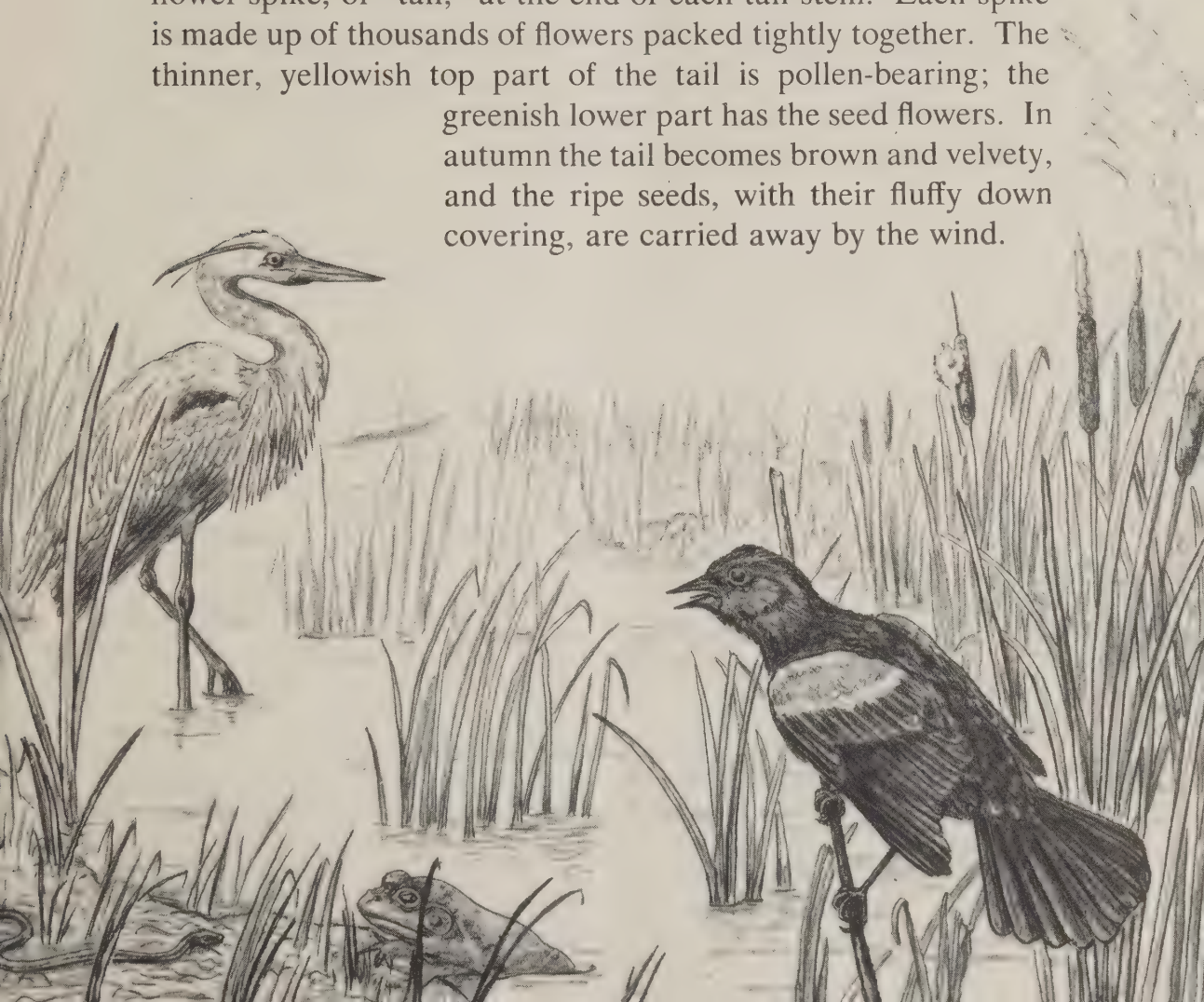




watching for a fish or a frog to spear with his long bill. The bird's general coloring is slate-blue. When flying, he folds back his long neck and stretches out his long legs behind. He is mainly a summer visitor.

Small colonies of red-winged blackbirds are also at home among the reeds. The male is glossy black, with bright red shoulder patches. The female is plainly dressed in streaked shades of brown. Their cheerful voices mark the coming of spring, but they stay around all summer to raise their young.

The cat-tail is a water plant with flat leaves that grow to a height of five or six feet. It blossoms in June, bearing a stiff flower spike, or "tail," at the end of each tall stem. Each spike is made up of thousands of flowers packed tightly together. The thinner, yellowish top part of the tail is pollen-bearing; the greenish lower part has the seed flowers. In autumn the tail becomes brown and velvety, and the ripe seeds, with their fluffy down covering, are carried away by the wind.



The rich soil of some of our marshland produces the largest of our local wild flowers, the mallow; they are pink or white and can be five inches across. The plant is shrublike and grows to a height of six feet.

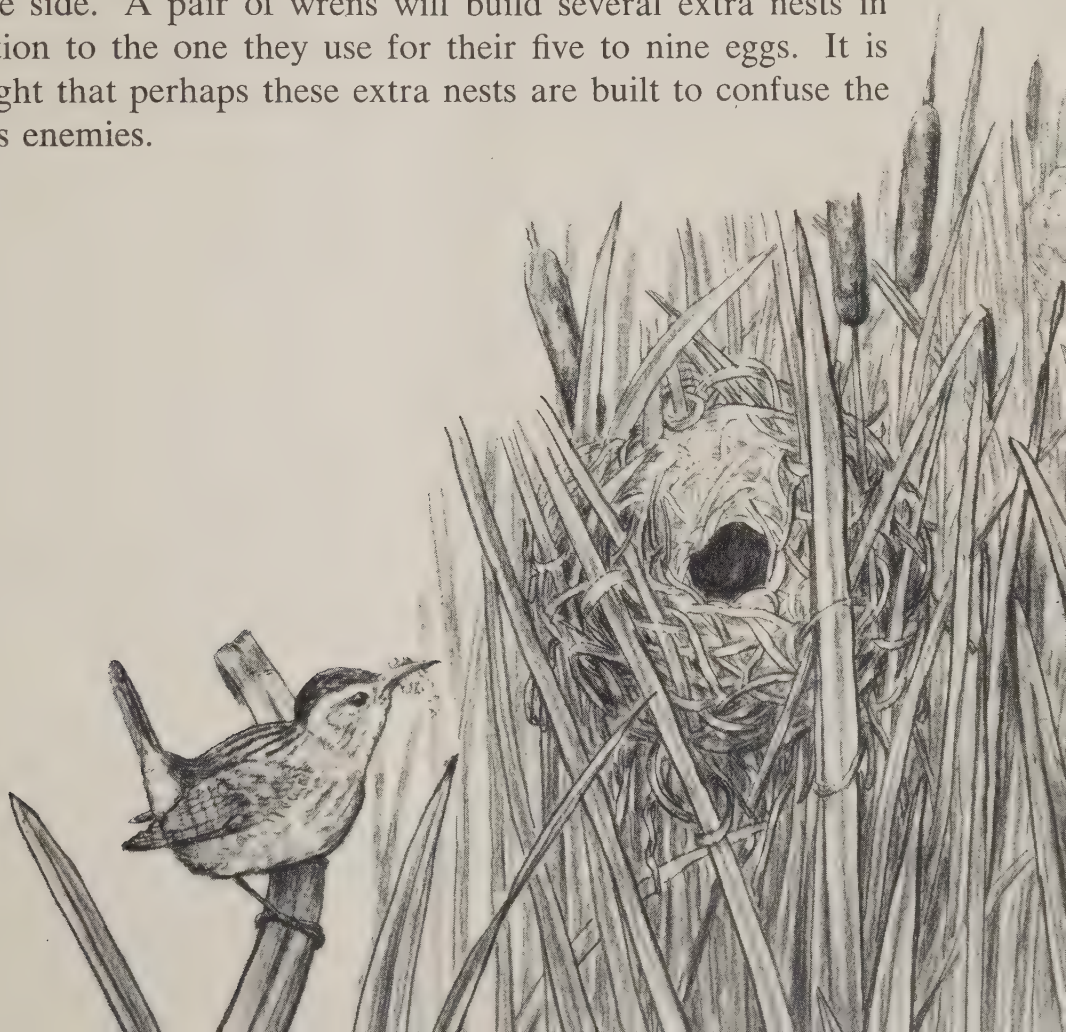
The sourgum tree thrives in our woodlands and along the edge of our marshes. Rising sometimes to a height of eighty feet, this tree is one of the earliest to show color; even in August its leaves begin to turn a rich red. Its fruit, a blue-black berry, has a sour taste.

The muskrat is a marsh dweller. He eats the roots of the mallow as well as those of wild iris and other plants. Because he is a gnawing animal, he belongs to the order of rodents. The "musk" part of his name comes from the musky odor left by the animal to tell his relatives he has been in the neighborhood. He lives in a burrow or a hut which he builds of mud and reeds. Including his flat ten-inch tail he is about thirty inches long. Muskrat pelts make warm fur coats. The long outer hairs are plucked from the pelt, leaving a thick undercoat. The pelts from Staten Island are considered especially fine.

From July to October Staten Island marshes are visited by the American egret, a bird that uses its long yellow bill to spear frogs and small fish. A beautiful white bird, the egret was once in danger of becoming extinct. In the south, where they nest, whole colonies of the birds were slaughtered while they were caring for their nestlings. The nesting plumage for many years was sold to adorn women's hats; but now the birds are protected by law.

The marsh hawk glides and hovers over the marshes looking for his prey. Seeing a field mouse below him, he swoops down to catch and eat his favorite food on the spot. The male bird is gray and the female brown; they both have a useful mark of identification, a band of white at the base of the tail. The birds are nineteen inches long and have a wing spread of about four feet.

A small bird, more frequently heard than seen, is the long-billed marsh wren. He sings by day, and he sings by night. He darts erratically through the reeds where he makes his home. The nest, woven of reeds, is securely fastened to upright cat-tails or sedges; it is shaped like a coconut and has an entrance hole in the side. A pair of wrens will build several extra nests in addition to the one they use for their five to nine eggs. It is thought that perhaps these extra nests are built to confuse the bird's enemies.



Fields

The flicker, arriving on Staten Island in March, is our most common summer woodpecker. His foot is built for tree-climbing, but nevertheless he spends much of his time on the ground. He haunts fields and gardens to find his favorite food, ants and all sorts of grubs. He uses his sticky, barbed tongue as a collecting tool. Flickers nest in holes in trees. They are a variegated brown, barred and freckled with dark markings, and easily identified because of a black crescent on the breast and a scarlet patch on the back of the head. The yellow lining of the wings and tail give the bird the nicknames, golden-winged woodpecker and yellow hammer. The flicker's voice is unmistakable; he calls "Yarrup! Yarrup!" as he makes his up and down flight. To add further to his desire to be heard he uses his bill to drum on a dead tree limb or a drainpipe.

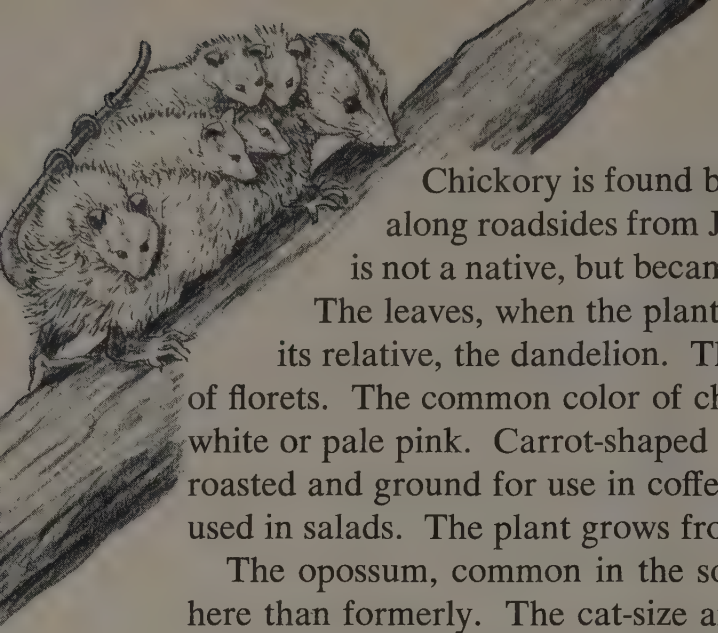
The song sparrow is about the size of the common English sparrow, and he stays right here all winter. Occasionally he visits feeding tables but is more shy than the white-throats and other sparrows who seem to enjoy human society. He is at home in fields and hedgerows, where he dines chiefly on weed seeds. The song sparrow's back is streaked brown and black; the underparts are white, with wedge-shaped dark markings; and he has an identifying heavy spot on the chest. As his name implies, this little bird is famous for his pleasant song.

The crow is one of our largest common birds, and he lives here the year round. From the tip of his bill to the end of his tail he measures a good nineteen inches. He is "black as a crow" and no one's favorite, for he takes the farmer's planted seeds and steals the eggs and baby birds from nests. His voice is a harsh "Caw!" but he is said to sing to himself occasionally with a musical little warble.

The pheasant belongs to the same family as the farmyard chicken. He is not a native bird but was imported from China many years ago. The male bird (including his long sweeping tail) measures thirty-four inches. He is richly colored and has red on his head. His blue neck feathers reflect bronze and purple lights. The female is quietly dressed in variegated brown. Hunting is not allowed on Staten Island, which probably explains why our pheasants show little fear. They are sometimes seen walking down quiet streets.

The Turk's cap lily, a relative of the onion, has purple-spotted petals and sepals curving back to form a red cap. As in other lilies of this group, the three petals and the three sepals resemble each other. The plant's lower leaves grow in circles around the stem, which is three to seven feet high.

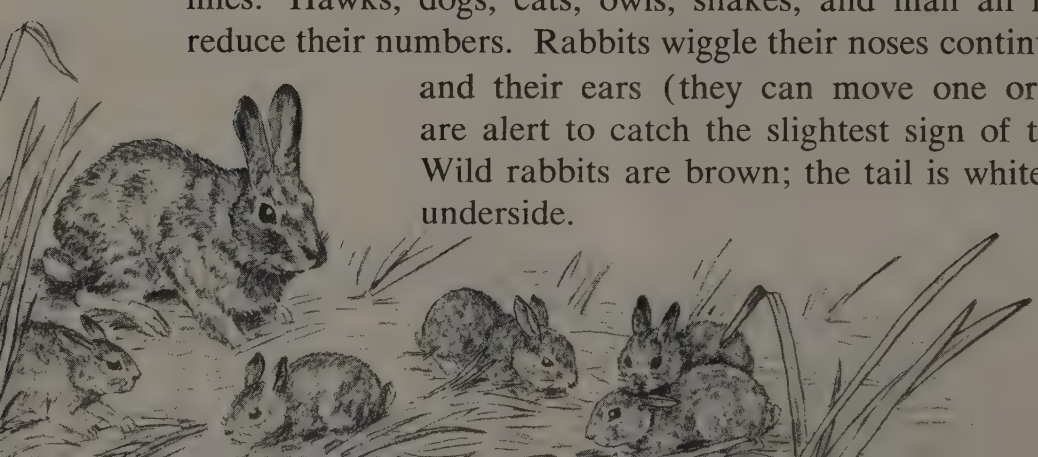
There are more than a hundred varieties of golden-rod, many of which grow on Staten Island. Some are heavily branched and thickly loaded with bunches of florets; others are lightly branched and feathery looking. From midsummer until late fall, our fields, roadsides, and beaches are spattered with the gold of one variety or another.



Chickory is found blooming in waste places and along roadsides from July until October. The plant is not a native, but became naturalized here long ago. The leaves, when the plant is young, resemble those of its relative, the dandelion. The "flower" is really a group of florets. The common color of chicory is blue, but it may be white or pale pink. Carrot-shaped chicory roots are sometimes roasted and ground for use in coffee. The young leaves can be used in salads. The plant grows from one to five feet high.

The opossum, common in the southern states, is less scarce here than formerly. The cat-size animal is a marsupial, which means that the female carries her new-born young in a pouch on her underside. As the babies gain strength, they crawl from the safety of the pocket and ride around clinging to their mother's coarse whitish hair. They wrap their prehensile tails around their mother's, which she turns up over her back for their convenience. When alarmed, the animal will "play 'possum" and pretend to be dead.

The cottontail rabbit sometimes invades gardens, where he feasts on vegetables. His natural home is a place where there are plenty of tangled briers and other such hideaways. There are from three to eight baby rabbits in a litter, and they grow very fast. A female will have three or four families a year. There would be a great many more cottontails if they had fewer enemies. Hawks, dogs, cats, owls, snakes, and man all help to reduce their numbers. Rabbits wiggle their noses continuously, and their ears (they can move one or both) are alert to catch the slightest sign of trouble. Wild rabbits are brown; the tail is white on its underside.



Many old fields on Staten Island have grown up with small trees and shrubs. One of these is the sassafras, one of the few trees bearing leaves of three different shapes; some are oval, some are mitten-shaped, and some are double mitten, with a "thumb" on each side. Drooping clusters of yellow-green flowers come out before the leaves and develop later into small dark blue fruits. Oil from the bark of the root is used for flavoring. The twigs and young leaves are used to make sassafras tea. Campers find the dried twigs good tinder for kindling a fire on a rainy day. In the fall the leaves turn red, purple, and gold.

Sumac turns bright red in autumn, and its red fruit is borne in crowded cone-shaped clusters. Many birds eat the seeds. Poison sumac, which has white berries, always grows with its feet in swampy soil and should not be handled, for its juice is extremely poisonous to the skin.

Botanically, poison ivy is a sumac. A handsome plant, especially when its leaves turn red in the fall, it is a great pest. Any part of the plant may irritate the skin and produce ivy poisoning; even the smoke from the burning plants may mean trouble. It is well to remember "Leaflets three – let it be. Berries white – poisonous sight!" The leaves are shiny, sometimes coarsely notched along the edge. The plant often takes a shrublike form, but more often it straggles over the ground or climbs up trees.

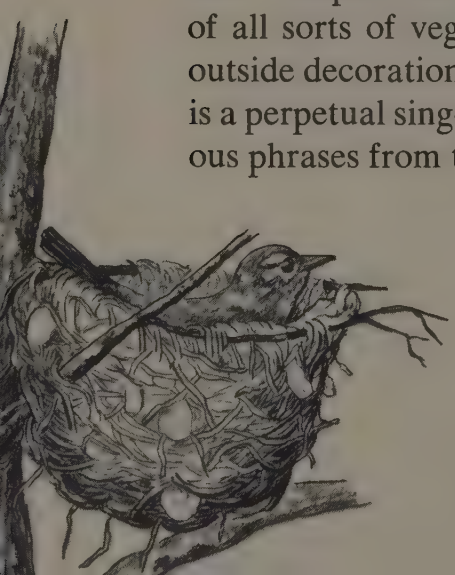
Virginia creeper is sometimes mistaken for poison ivy, but it has five leaflets, rather than three, and can be handled without danger of irritation.

Woodlands

In summer the woods on Staten Island, such as those at Wolfe's Pond and Willowbrook Park, have many bird residents. The catbird arrives in early spring after spending the winter far away from the cold. A member of the mockingbird family, it has a varied song, a medley of notes and phrases, some of which are borrowed from other birds. The one easily recognizable call is a repeated cat-like mew. The bird is not quite as large as a robin, is slate-gray in color, and has a black cap.

The cardinal or red bird is common here the year round, both in gardens and in woods. It likes to visit daily any feeding station offering sunflower seeds. The male is brilliant red with black around his scarlet bill; the female and the young birds are faded copies of the male. The birds have a conspicuous crest which they erect or lower according to their state of mind. Once heard, the cardinal's clear song is unmistakable. His call note is a repeated "Chet."

The red-eyed vireo, about the size of an English sparrow, comes north in May. It is famous for its wonderfully well-made nest. Shaped like a basket, it is hung in a tree fork. It is made of all sorts of vegetable fibres and cobwebs, with cocoons for outside decoration; inside, it is lined with fine grasses. The male is a perpetual singer; from dawn to dusk he repeats his monotonous phrases from the tree-tops. When not singing he runs along a tree branch hunting for insects. He is grayish green above and white below, but his outstanding mark is a white stripe over the red eye.

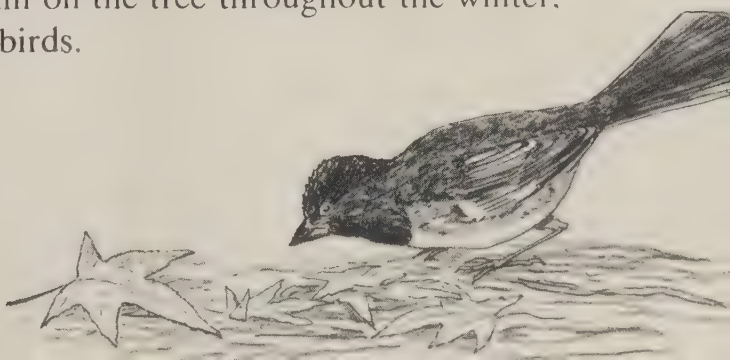


The brown thrasher, on his arrival in the spring, is a common sight in woods and gardens where there is plenty of shrubbery. He has a tail longer than a robin's but a much slimmer bill with a downward curve. Above, he is bright brown; below, cream buff with dark streaks. Belonging to the mockingbird family, thrashers have very musical voices, sometimes imitating the songs of other birds and always singing each phrase twice.

The towhee or chewink repeats his name over and over as he sits on a low tree-branch. He spends much of his time, however, scratching for insects among fallen leaves. The male has distinctive plumage – black above marked with white, sides of brilliant reddish brown, and white below. The female is much less conspicuous, her coloring more nearly matching the dried leaves among which she usually builds her nest. Most towhees migrate southward with the coming of cool weather, but a few sometimes stay on Staten Island all winter.

Various kinds of maples grow on Staten Island. Pictured here are the leaves and winged seeds of the red maple. In April, the tree's tiny red flowers open in numberless clusters before the leaves appear. The red maple, sometimes called swamp maple, can be found in almost any moist area on the Island. The red-stemmed leaves turn scarlet in the fall.

The sweet gum tree has star-shaped leaves which turn several different shades of red in autumn. A sweetish liquid oozes from the bark when injured. The seed balls, each a collection of connected capsules, hang on slender stems; they ripen into woody burrs, but they often remain on the tree throughout the winter, providing seeds for many birds.

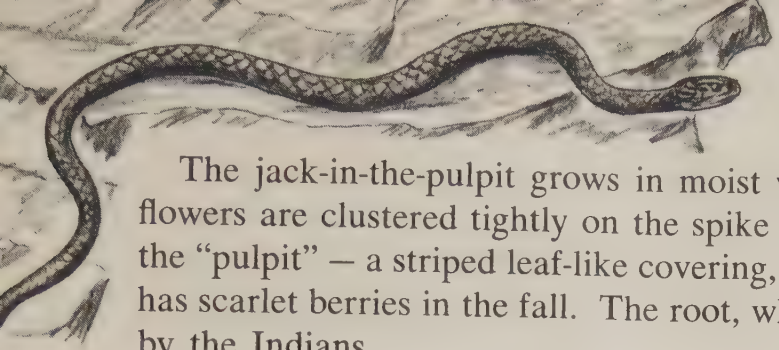


The white oak is one of thirteen varieties of oaks on Staten Island. This tree, like many others, reaching for the sun, grows straight and tall in the woods; but in open fields it spreads its branches and grows round and shady. The leaves are seven to nine inches long; they are usually narrow near the base and have from seven to nine lobes. Once the Indians used the acorns as food; now only the squirrels, chipmunks, and other wildlife enjoy them.

Chipmunks, one of the liveliest of the small rodents, may sometimes be seen running along stone walls, often with their cheek pouches so stuffed with food that they look ready to burst. They are rusty-yellow, with white undersides, and five black and two white stripes down their backs. They grow to be six inches long, plus a slender four-inch tail. Their home is a burrow, which they use as a storehouse for acorns and other seeds to be eaten during the winter. At this season they come out on warm days only.

Gray squirrels, because they live so close all around us, can hardly be called wild animals any longer. They sleep in holes in trees or wherever they can find shelter. In the fall they busily collect leaves to make their homes cozy. In some areas they go into partial hibernation; and people who feed birds sometimes wish the squirrels would sleep all winter, for quite often the bushy-tailed rodents steal the food. They bury seeds and nuts, and many a tree was originally planted by a squirrel.

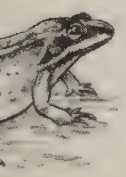
The white-footed mouse, often called the deer mouse, has large dark eyes, and big ears. He has a brownish or grayish back with a white underbody. About seven inches long, he is almost half tail. This tiny rodent eats seeds, nuts, and berries, often climbing bushes to get them. He makes a good pet.



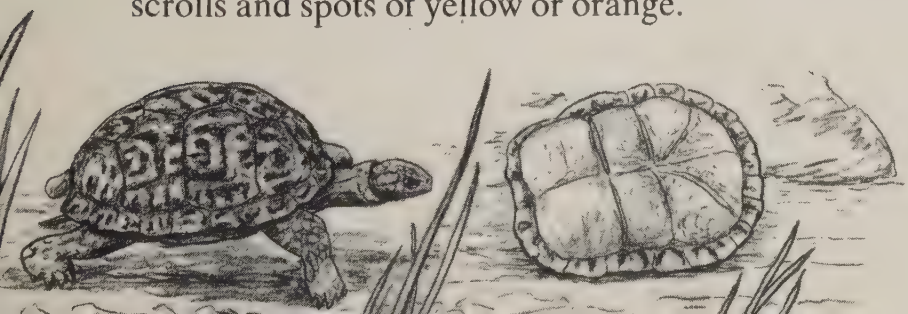
The jack-in-the-pulpit grows in moist woodlands. The tiny flowers are clustered tightly on the spike and are protected by the "pulpit" – a striped leaf-like covering, or sheath. The plant has scarlet berries in the fall. The root, when boiled, was eaten by the Indians.

The blacksnake lives in rocky places in open woods and is sometimes found basking on a stone wall at the edge of a field. In winter, groups congregate in a den. Many people think these reptiles aggressive, but actually they prefer to glide away from a human intruder. They are smooth, satiny black in color and grow to be five feet long. They make themselves generally useful by eating large numbers of rats and mice.

The wood frog is an amphibian (from a Greek word meaning *double life*). His first weeks are spent as a tadpole in a pond, but later, when he grows up to be a frog, he takes to the woods, sometimes going far from his original home. In early spring the adults can be heard croaking from many a pond to which they have returned for mating and egg laying. The female is 3 inches long, the male smaller. They are protectively colored and are hard to see among fallen leaves and mosses; they have identifying dark cheek patches and a cream-colored line along the upper jaw, running as far as the shoulder.



The box turtle is a land-dweller, eating insects and worms, and is especially fond of blackberries. He shuts himself up in his own box when alarmed. The lower shell (plastron) is hinged, and he can draw in his head, feet, legs, and tail. The upper shell (carapace), is brown or blackish and is ornamented with scrolls and spots of yellow or orange.



Ponds and Streams

There are still over fifty ponds on Staten Island, but some of the easiest to visit are those in Clove Lakes Park. Many of the fifty are populated by the "pumpkin seed" – a fish so named because of his flat shape. The common sunfish, too, can often be seen in the shallow water, its iridescent coloring flashing in the sunlight. In early summer, the male chooses a spot near the shore for a nesting site. He makes a saucer-shaped depression, forming it mainly with his tail; but he picks up the larger pebbles in his mouth. After he has persuaded a female to lay her eggs in the nest, he guards it against all comers. Sunfish grow to a length of eight inches, and although they do not have much flesh on their bones, they are good to eat.

Choke pondweed or ditch moss is a very common water plant found in some of our ponds and slow streams. Its botanical name is *Elodea*. It multiplies rapidly, as broken stems of the plant will continue to grow when floating in the water.

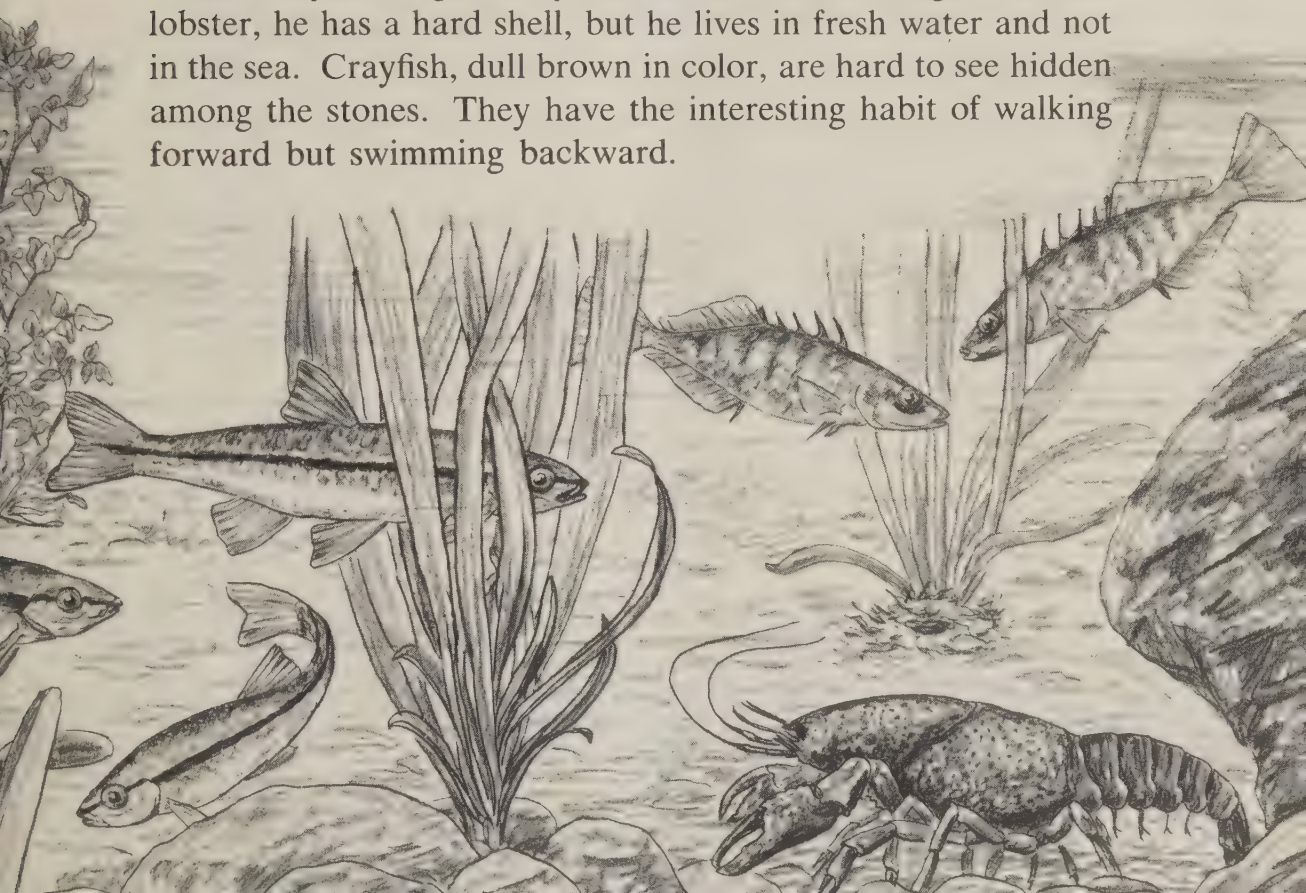
A number of swift fresh brooks, such as Deadman's Brook, Willow Brook, Sandy Brook, and Reed's Valley Brook, flow down from the hilly areas. Water cress grows in a few of them. Some of the branches grow above water; others may run along the bottom, sending out little roots and causing new plants to sprout.

Eel-grass grows from the bottom of ponds and streams. The long leaves grow so thickly that in some places they prevent fish from swimming through to catch and eat mosquito larvae.

Many fishes like to hide among the water weeds. The black-nosed dace is a minnow common to small streams. The black on its nose continues as a dark line along the body, which is olive green above and silvery below. These little fish are a favorite food of larger fishes, ducks, wading birds, and turtles.

The stickleback gets its name from the sharp spines along its back. It is a great fighter, though it is only about two and one-half inches long. The male fish builds a nest of tiny bits of weed held together by glue made in his own factory. After one or more female sticklebacks lay their eggs in it, he takes up his station nearby and drives off all intruders, including the females.

The crayfish is generally about three inches long. Like the lobster, he has a hard shell, but he lives in fresh water and not in the sea. Crayfish, dull brown in color, are hard to see hidden among the stones. They have the interesting habit of walking forward but swimming backward.



During part of its life the toad makes a pond its home. In the spring, Fowler's toad leaves its winter burrow in the ground and makes its way to a quiet pond. In May, the female lays thousands of eggs in strands of jelly. The young tadpoles hatch out in about a week. They live on vegetable matter and grow fast. At first they have gills and a long tail but no legs. Soon the gills and tail have disappeared, legs have sprouted, and the new toad leaves the water to take up life on land. There, it ceases to be a vegetarian and goes on a diet of worms and insects.

The painted turtle lives in a pond, too, where it feeds under water on almost anything it can find. It is often seen basking on a partly-submerged log. The upper shell is dark greenish-black marked with yellow; the edge is "painted" red. In a sunny spot, near the water's edge, the female scoops out a shallow hole with her back feet, deposits up to ten white soft-shelled eggs, covers them up, and then goes off about her business. Able to take care of themselves as soon as they hatch out, the baby turtles make for the water, where they grow up and live a turtle's life.

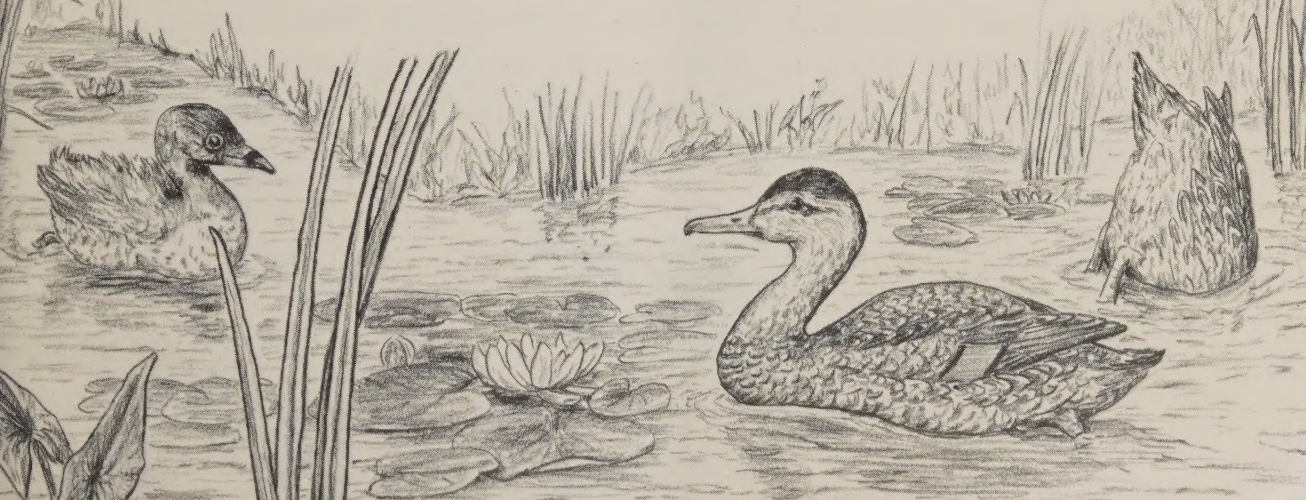
Water striders, an inch long, skate swiftly over the surface of the water, their feet making dimples and their bodies casting shadows below. The whirligig beetle, another common water insect, circles around and around on the surface of the water, feeding on microscopic pond life.

The black duck is a regular resident of fresh water ponds and streams on Staten Island. Its general coloring is dark brown. Favorite feeding times are dusk and dawn, and groups of the birds can often be seen flying in V formation from their roosts in salt marshes to their fresh-water feeding grounds.

A smaller water-bird is the pied-billed grebe, which measures about thirteen inches in length. It is brownish-black above and has white, satiny feathers below. Awkward on land, this little grebe is an expert diver and under-water swimmer. He is able to sink himself in the water without making a ripple. This disappearing trick has earned him many local nicknames – water witch, hell-diver, and dipper. Grebes have peculiar feet; instead of being webbed like most swimming birds, the toes are scalloped along the edges with flaps of skin.

The white flowers of the sweet-scented water lily rest on the surface of some of our ponds. The roots are anchored in the mud below, and the long rubberlike stems bear either thick leathery green leaves (known as pads), or the short-lived flowers, which open only in the morning sunshine and close in the afternoon.

The cardinal flower, sometimes four feet tall, grows in wet places along the edge of streams or ponds. Its brilliant red spires of bloom are seen in August and September, one of the loveliest sights still offered by Nature on Staten Island.



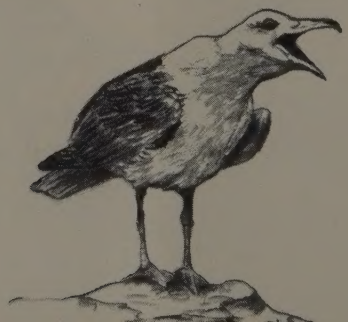
What to Do About It

Staten Island is lucky. It still has all the wonderful wild plants and animals mentioned in this book, and many more besides. They help to make life pleasanter and healthier than it is in cities without them; but if we want to keep them we must remember that they need care and protection just as the plants in our gardens or the pets in our houses do.

This means that people must not break the branches of trees and shrubs, must not dig up plants or chop down saplings, and must not dump rubbish in woodlands and brooks. The reason is easy. If people do these things it means that, before long, there won't be any pretty country left or any pleasant homes for plants and animals.

But brush fires are worse than anything else. They kill all the plants and trees, leaving only cat brier and poison ivy to grow in their place; and not a single animal, if he comes out alive, has a home to go back to. There are more than 3,000 such fires reported each year on Staten Island, most of them caused by carelessness or by thoughtless people who actually set them.

Which do we want for Staten Island: blackened stumps and thorny tangles – or green fields and woodlands full of birds and flowers? The birds and flowers, naturally; but unfortunately they can't fight back when fire or thoughtless human beings attack them. We must do it for them by showing everybody we know that, with only a little care, wild plants and animals can live and be enjoyed – even in a great city.



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